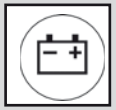
SERVICE MANUAL

HR120C-9 (canopy)

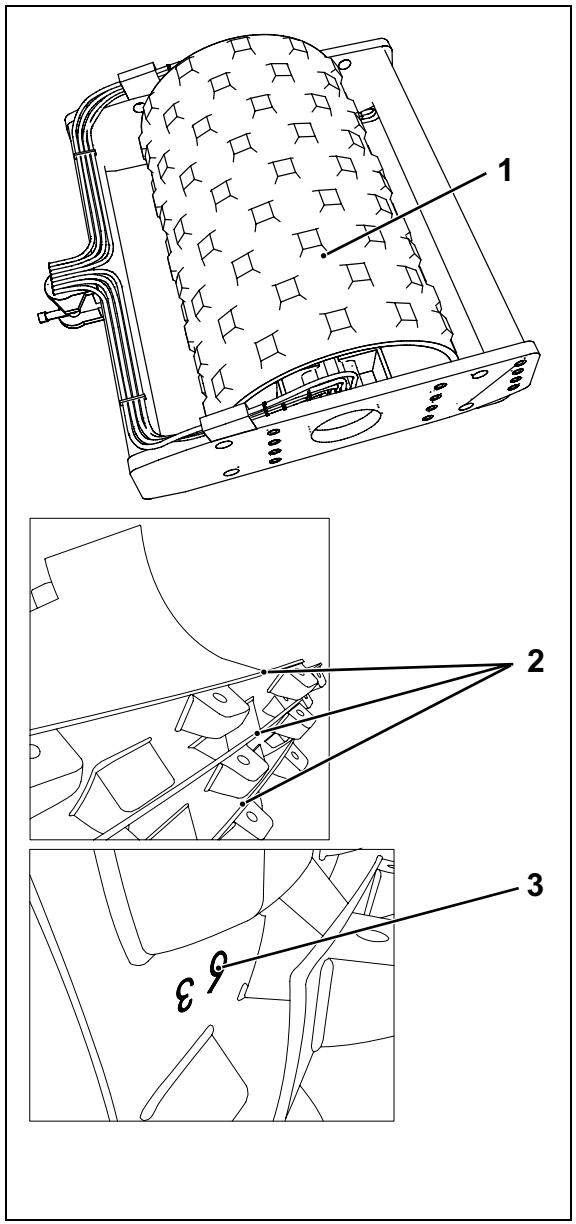
1.1.4 Designation of the legal dimension units

Metric	Inch
25.40 mm	1 in (inch)
1 kg (kilogram)	2.205 lbs (pounds)
1.356 Nm (1 kpm)	7.233 lbf x ft (pound force foot)
1.356 Nm (0.138 kpm)	1 lbf x ft (pound force foot)
1 kg / cm	5.560 lbs / in (pound per inch)
1 bar (1.02 kp/cm^2)	14.233 psi (pounds force per square inch lb/in^2)
0.070 bar (0.071 kp/cm^2)	1 psi (lb/in2)
1 Liter	0.264 Gallon (Imp.)
4.456 Liter	1 Gallon (Imp.)
1 Liter	0.220 Gallon (US)
3.785 Liter	1 Gallon (US)
1609.344 m	1 Mile (land mile)
0° C (Celsius)	+ 32° F (Fahrenheit)
0° C (Celsius)	273.15 Kelvin

3.1.1 Displays Dashboard

Symbol	Function	Description
	**Display forward motion (green)**	Activation (light) indicates that the compaction roller is moving forward.
	**Display reverse motion (green)**	Activation (light) indicates that the compaction roller is moving backward.
	**Warning light parking brake (red)**	Light indicates the activation of the parking brake. The Diesel engine can only be started with the parking brake applied. Driving is not possible with the parking brake applied.
	**Warning light charge control (red)**	Light indicates that the ignition is activated. Fades as soon as the Diesel engine and the generator have started.
	**Warning light brake pressure (red)**	Indicates that the hydraulic oil pressure of the brake system is insufficient.
	**Diesel engine oil temperature (red)**	If this lamp lights up, immediately stop the compaction roller and let the Diesel engine idle until the oil cools down! See Deutz operating manual.
	**Diesel engine oil pressure (red)**	If this lamp lights up during operation, immediately stop the Diesel engine!

4.1 Conversion from a smooth roller drum to a pad foot drum



Safety instructions referring to work with the compaction roller

NOTE!

Obligatory information!

- Inform yourself of all issues related to operating the compaction roller.
- A crane with a lifting capacity of at least 8 tons is required to retrofit the compaction roller and convert to a pad foot drum.

Converting from a smooth drum to a pad foot drum

- A retrofit kit containing three pad foot segments is available for using the compaction roller with a pad foot drum (1).

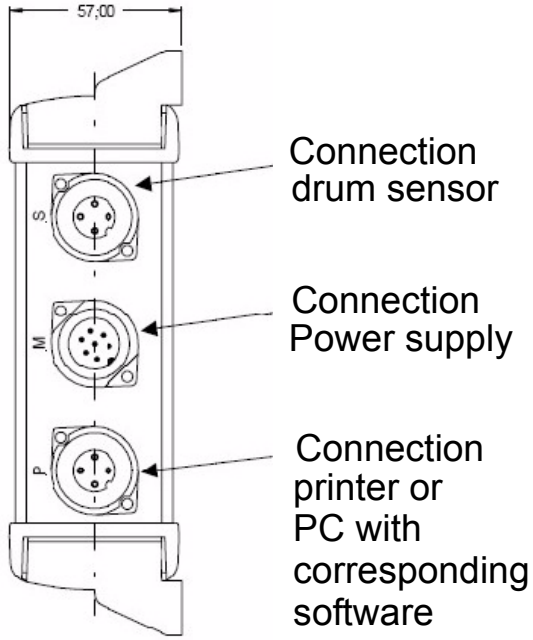
Labeling of the pad foot segments

- Each of the three pad foot segments (2) is individually labeled next to the split pad feet (3).

NOTE!

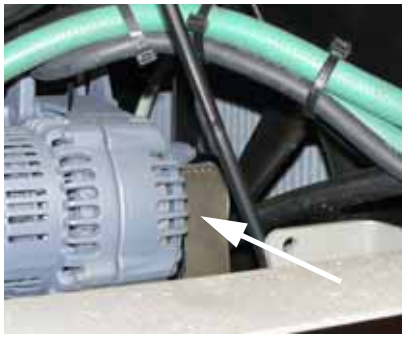
- Observing the following instructions and maintaining the correct sequence of actions is of vital importance in order to mount the three pad foot segments (PD shells).
- Pay close attention to the labeling (3) of the segments (2) and the correlation of the serial numbers.
- Only appropriately labeled pad foot segments (2) with identical serial numbers match up for this particular compaction roller.

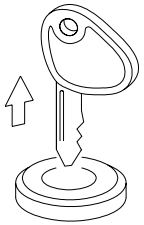
4.2.3 Connecting the compaction measurement system



- The connections for the compaction measurement system (2,3) are established by means of plug adapters (9).
- Be sure to observe the correct allocation of the plugs.

Checking the V-belt





- Check the V-belt tension and watch out for damage.

WARNING!

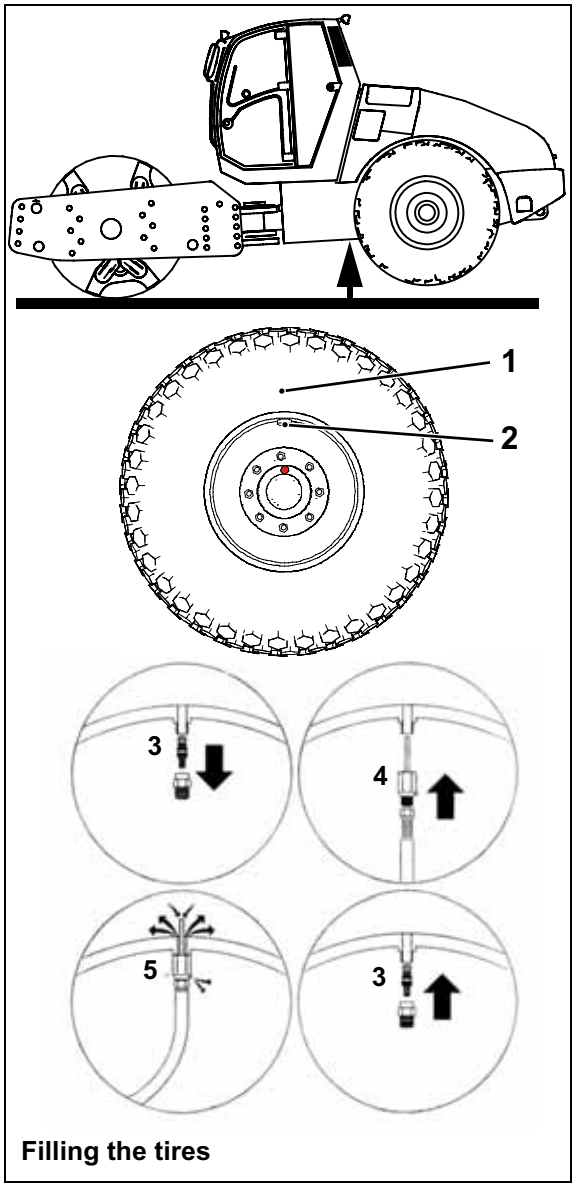
- Never check the V-belt tension with the Diesel engine running!
- Turn off the Diesel engine and remove the ignition key.

NOTE!

- Refer to the Deutz Diesel engine operating manual for instructions on tensioning and replacing the V-belt.

5.3 Tires at the rear axle

5.3.1 Water filling



Filling the tires

- In order to improve their propulsional properties, on delivery, the tires are filled with water and an antifreeze additive composed of magnesium chloride.

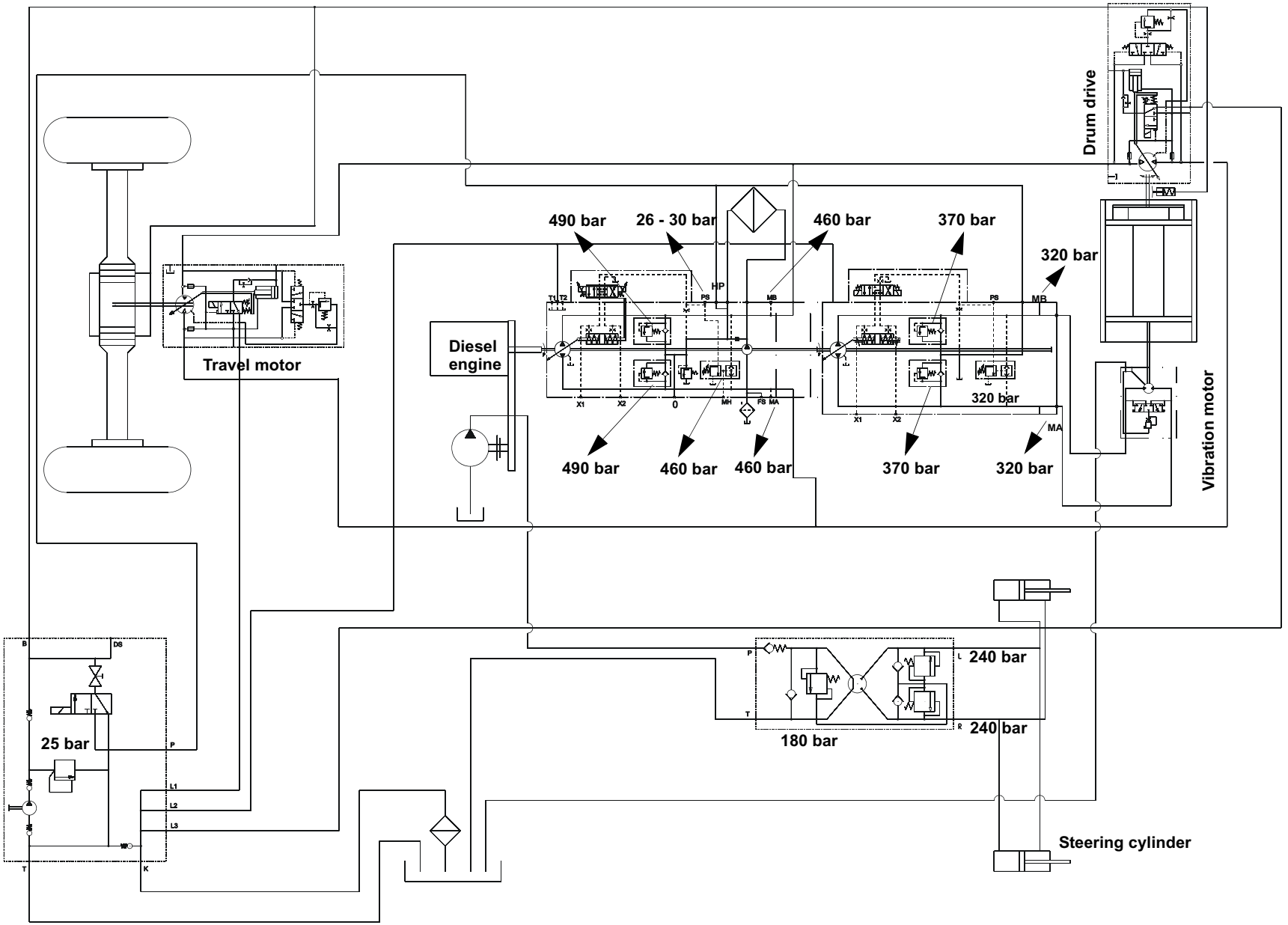
NOTE!

- Magnesium chloride is commercially available granulated salt with a 47% share of dry substance. In countries where the exterior temperatures never fall below 0° C, the tires can be filled with industrial water, without any additives.

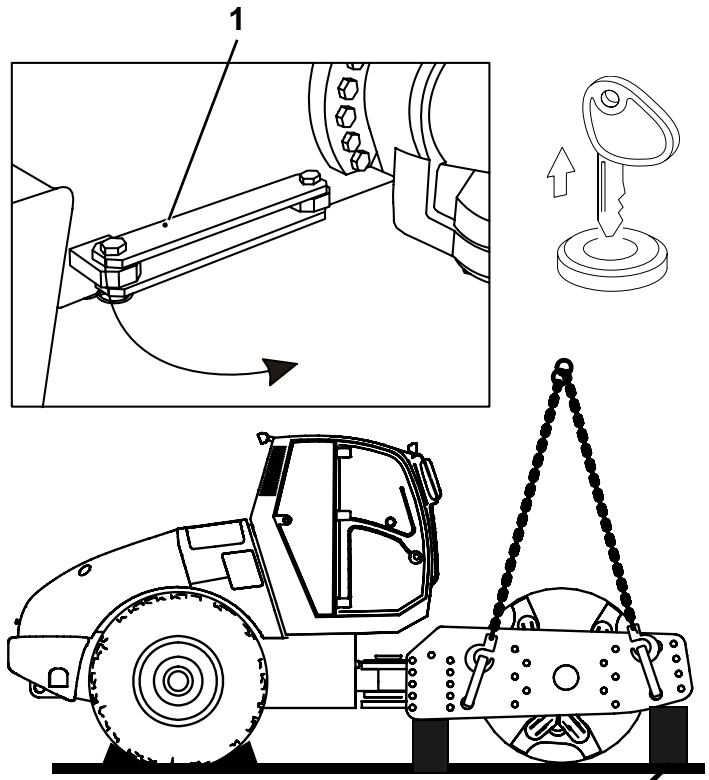
Filling procedure: Water and antifreeze additive

- Use a hydraulic jack to lift the compaction roller at the rear axle.
- Turn the respective tire (1) until the charge valve (2) is in its **top** position.
- Slowly unscrew the valve core (3).
- Screw a hose line (4) onto the charge valve (2).
- The saline solution can be poured into the tire (1) by means of a container placed at a higher level or via a special pump.
- The filling process (5) must be interrupted repeatedly because the tire needs to be bled (ventilated).
- If the tire is not sufficiently filled after pouring in the saline solution, add industrial water to establish the required fill level.

6.2.3 Hydraulic circuit diagram - entire hydraulic system HR120C-9



7.2 Installing and dismantling the drum



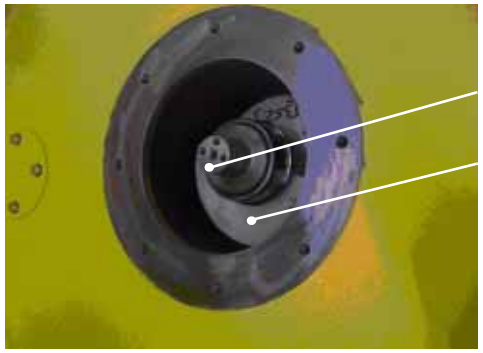
Supporting the drum frame

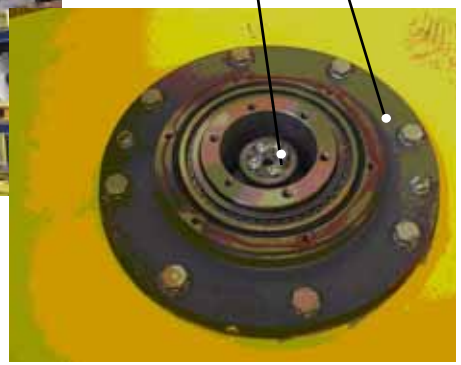
7.2.1 Preparing the roller for drum removal and installation

ATTENTION!

The drum may only be removed in a workshop.
Sufficient crane capacity must be available to lift the drum frame and the drum.

- Secure the roller against rolling before starting work.
- Pull out the ignition key.
- Insert the anti-buckling device (1) between the drum frame and the basic frame.
- Be sure to secure the rear wheels by means of wheel chocks.
- Use suitable lifting gear to fasten the drum frame to a crane.
- Lift the drum frame so that the drum and the rubber buffer are released from any charge .
- Place supports (2) under the front and at the rear of the drum frame.
- Put oil receptacles under the drum drive and under the vibration drive.





Installing the bearing housing and the vibration shaft on the vibration drive side:

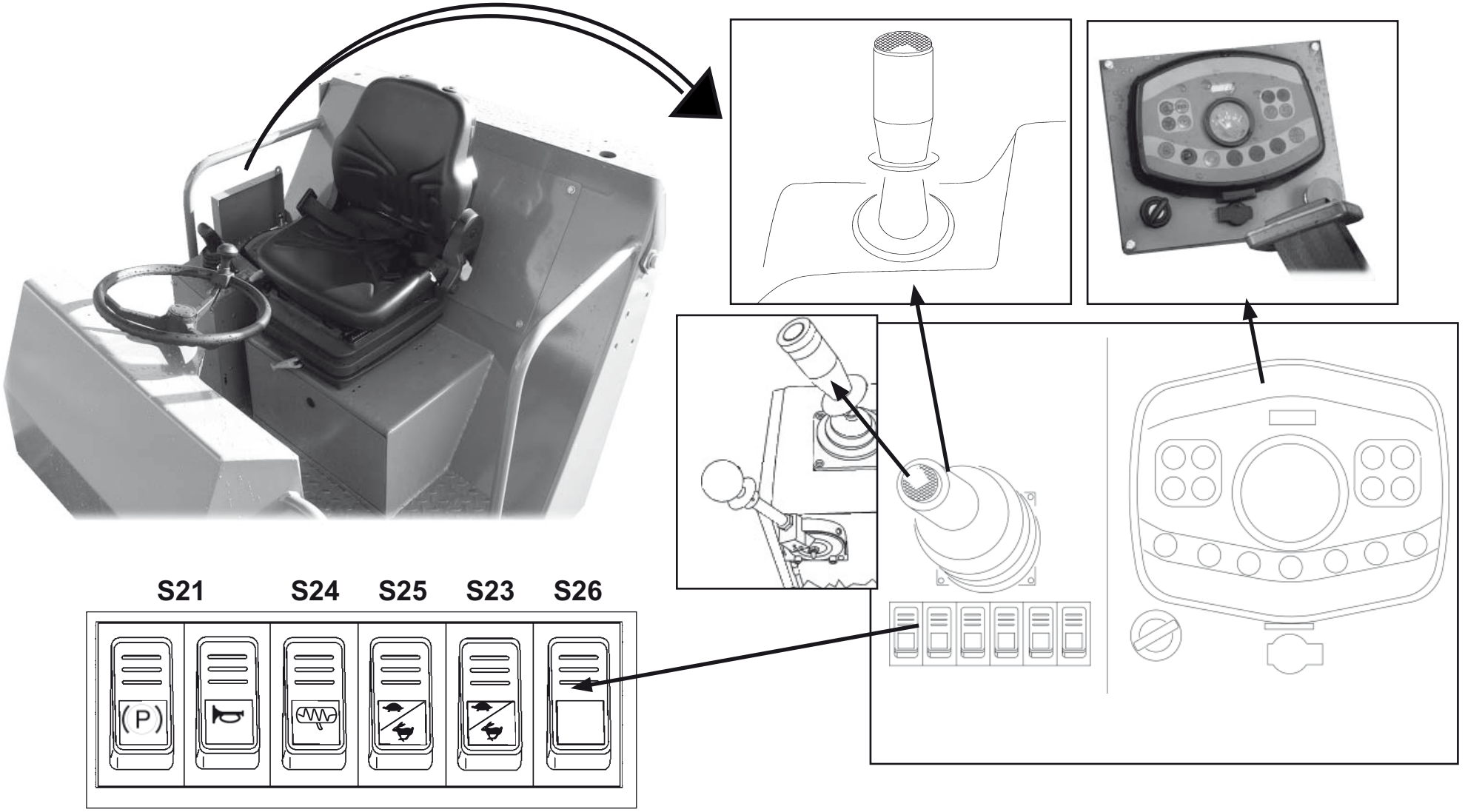
- Screw an eyebolt into the marked tap hole (10).
- Use a crane to insert the vibration shaft (11) into the drum.
- After inserting the shaft (11) by turning it, check whether it is seated correctly in the bearing of the drum drive side.

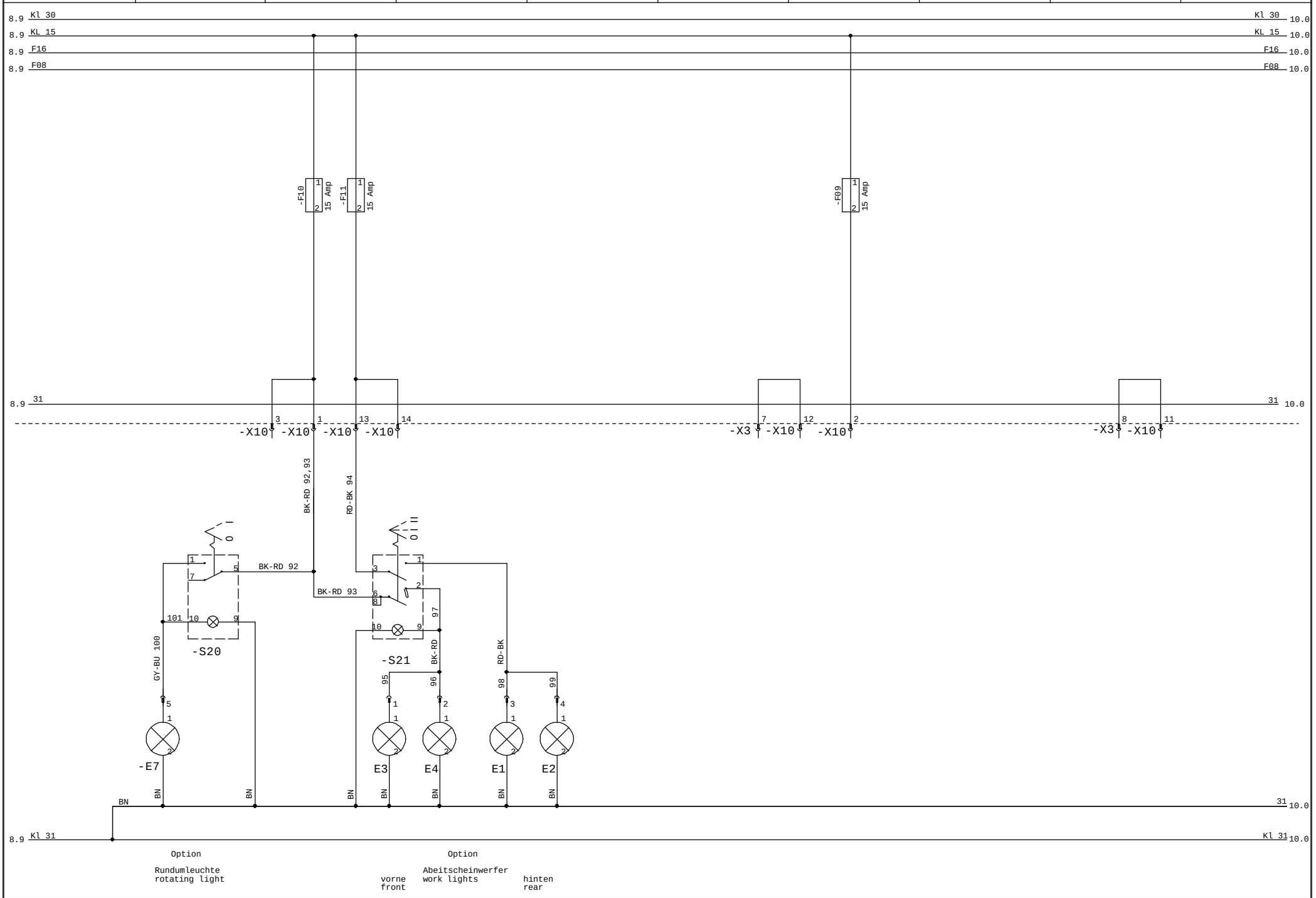
- Remove the eyebolt (10).
- Use four screws to install the coupling (7) in the housing (8) and bolt it onto the shaft.
- Apply sealing compound (e.g. Loctite 518) to the sealing face of the drum.
- Insert the bearing housing (8) into the vibration drive side. Refer to the description 'Installing the bearing housing of the drum drive side'.
- Fill in lubricating oil (in accordance with the SAE 40 specifications) via the opening between the bearing fixture and the shaft bearing.
  - Required quantity of lubricating oil: 17 liters

8.1.5 Troubleshooting

Malfunction / Fault	Causes and Effects	Measures to be taken
Vibration fails to start	**Electrical fault**: • The button on the top of the joystick, which serves to (de)activate the vibration, is defective. • Fuse 02 is defective. • Solenoid valve Y05/06 is defective. **Hydraulic fault:** • The supply pressure is too low.	• Check the vibration selector switch on the console. Check relay K04. • Replace the fuse, if necessary. • Replace the solenoid valve, if necessary. • Check the supply pressure. • Check high pressure **A** & **B** at measuring points. • Check the coupling between the vibration motor and the shaft.
Vibration cannot be stopped	• The button on the top of the joystick, which serves to (de)activate the vibration, is defective.	
The vibration system works sluggishly	• Speeds	• Check high pressure **A** & **B** at measuring points **MA** and **MB**. • Check the oil level in the vibration bearing, see **Maintenance Instructions**.
The vibration system produces loud noise	• Frequencies	• Check the frequencies. • Check the vibration system.

Overview: Switches (refer to electrical circuit diagrams for further information on the functions)





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